Barriers and Facilitators to Bedside Nursing Involvement in Antibiotic Stewardship: Multisite Qualitative Study of Prescribers

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The Centers for Disease Control and Prevention and the American Nurses Association (CDA/ANA) have outlined specific responsibilities for bedside nurses (RNs) in antibiotic stewardship efforts.

These responsibilities expand traditional nursing roles and scope of practice and are perceived to require prescribers’ (e.g., physicians, nurse practitioners, and physician assistants) engagement in order to be implemented effectively.

We explored prescribers’ attitudes towards RNs’ involvement in antibiotic stewardship as well as barriers and facilitators to the following RN responsibilities specified by the CDA/ANA:

- RNs facilitate accurate antibiotic allergy histories from patients
- RNs encourage switching from intravenous (IV) to oral (PO) antibiotics
- RNs initiate an antibiotic time out with prescribers

Background

The antibiotic qualitative allergy assessment potentially leads to more reliable history-taking.

- "I don’t…usually think nursing [is] the first person that I think to about a patient's antibiotic..." I say that sometimes a patient has an allergy history, but really I am also to provide a good history. And they, in the by the time they get to the unit and it’s time for the nurse—they might be improved. It might be another opportunity to try to get a little bit more information."

Systematic nursing allergy evaluation could decrease allergy propagation through the electronic medical record.

- "If there’s a patient with Red Man…the nurse may tell parents, ‘Don’t give them penicillin,'..."

Focus groups conducted among a variety of prescriber groups (attending physicians, nurse practitioners, internal medicine and pediatric residents) between July 2017 and March 2018 at two academic adult and pediatric hospitals in New York City. Convenience sampling was used to recruit participants.

Focus groups were comprised of members of the same specialty and level of training. A nurse researcher with a background in qualitative methods (E.C.) led the interviews and focus groups.

A standardized interview guide was used for each focus group.

- Part 1: Prescribers’ perceptions of RNs and antibiotic use
- Part 2: Prescriber’s reactions to specific CDA/ANA recommendations outlined above
- Transcripts were coded using a conventional content analysis in NVivo 11.

Results

Prescribers' attitudes regarding the bedside nurse's role in antibiotic stewardship:

Facilitators

- Prescribers recounted positive interactions with nurses in the past and enthusiastically viewed RNs as having the potential to contribute to antibiotic stewardship at the bedside.
- "I actually try to solicit the nurse’s opinion [and ask], ‘Do you think this person’s been coughing?’...’
- "I would not expect a nurse to feel empowered to do [antibiotic stewardship], unless I know we’ve engaged in some sort of discussion about that issue..."
- "If there’s a [patient’s] [Need fill] role, the nurse may tell parents, ‘Don’t worry, we are going to make sure that...’"
- "I think, generally, from an internal standpoint, we like to have nurses who are proactive in their thinking—"

Barriers

- Perception that stewardship is beyond the current scope of nursing practice.
- "If they don’t really discuss with prescribers and nurses, ‘What do you think?...’"
- "'What do you think?’...or, ‘What do you think?’...I figured"

Lack of regular communication between prescribers and nurses:

- "I think we don’t really discuss with them, unless it’s obvious about it and they ask. But it wouldn’t be necessarily a voluntary action that we take to go up to the bedside nurse and say, ‘I’m planning to continue Zosyn for four days, so there’s gonna be two more days. That does not really happen, I’ll say...for any of us.”

Disturbance of workflow:

- "It’s a little hard for—to a certain situation of a patient, right?...I don’t think they put that down, there’s one time, it was questionnaire."

RNs require increased engagement:

- "If it can’t be an opportunity if somebody said, ‘OK, I see you have an allergy to penicillin, can you tell me about that?..."

Stewardship, nursing education, and improved documentation needs to be tailored to the needs and resources of a particular unit/specialty.

- "I think that new patient family interview that would require a conversation about that to be made would likely fail on [prescriptions].”
- “[We] prescribers...should ask when we’re taking our histories to clarify [allergies].”

Some barriers to CDA/ANA recommendations can likely be overcome with increased education (e.g., encouraging the switch from IV to PO), while others may require re-working of systems (e.g., changing rounds to accommodate a nursing initiated antibiotic timeout).

Conclusions

Overall, prescribers were eager to have nursing involvement in antibiotic stewardship activities.

Prescribers reflected on prior positive experiences with empowered/experienced nurses and were enthusiastic about further engaging with nurses who understood principles of antibiotic stewardship, rather than rote following of protocol.

Stewardship interventions need to be tailored to the needs and resources of a particular unit/specialty. For instance, the recommendation regarding the IV to PO switch was not felt to be a need in the Medical ICU (where a critical care pharmacist rounds with the team). Conversely, this involvement was well-received on a pediatric ward.

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Ongoing interdisciplinary conversations between nursing and prescribers are needed for effective implementation of bedside nurses into antibiotic stewardship activities.

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